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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/788,912
	Filing Date	02/27/2004
	First Named Inventor	Chen et al
	Art Unit	2891
	Examiner Name	Sarkar, Asok
Total Number of Pages in This Submission	Attorney Docket Number	67,200-1210 (2003-0648)

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance communication to Technology Center (TC)
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Certificate
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of Correction

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Tung & Associates 838 West Long Lake Road, Suite 120, Bloomfield Hills, MI 48302
Signature	
Date	11/16/06

CERTIFICATE OF TRANSMISSION/MAILING	
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.	
Typed or printed name	Randy W. Tung
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Date	11/16/06

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**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

Page ____ of ____

PATENT NO. : US 7,071,100

APPLICATION NO.: 10/788,912

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ISSUE DATE : July 4, 2006

INVENTOR(S) : Kei-Wei Chen, Jung-Chih Tsao, Chi-Wen Liu, Jchung-Chang Chen, Shih-Tzung Chang, Shih-Ho Lin, Yu-Ku Lin, and Ying-Lang Wang

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Assignment was not recorded.

Assignee was not entered on the face of the patent.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: **Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

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DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

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SEPTEMBER 02, 2004

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UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 02/27/2004

REEL/FRAME: 015034/0707

NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

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DOC DATE: 11/19/2003

ASSIGNOR:

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DOC DATE: 11/19/2003

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DOC DATE: 11/19/2003

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NOV 24 2004

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WANG, YING-LANG

DOC DATE: 11/19/2003

ASSIGNEE:
TAIWAN SEMICONDUCTOR MANUFACTURING
CO. LTD.
NO. 8 LI-HSIN RD. 6
SCIENCE-BASED INDUSTRIAL PARK
HSIN-CHU, TAIWAN R.O.C.

SERIAL NUMBER: 10788912

FILING DATE: 02/27/2004

PATENT NUMBER:

ISSUE DATE:

TITLE: METHOD OF FORMING BARRIER LAYER WITH REDUCED RESISTIVITY AND
IMPROVED RELIABILITY IN COPPER DAMASCENE PROCESS

STEVEN POST, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

NOV 11 2003



To the Honorable Commissioner of Patents and Trademarks 102688558

and original documents or copy thereof.

1 Name of conveying party(ies): KEI-WEI CHEN JUNG-CHIH TSAO CHI-WEN LIU JCHUNG-CHANG CHEN SHIH-TZUNG CHANG SHIH-HO LIN YU-KU-LIN YING-LANG WANG	2 Name and address of receiving party(ies): Taiwan Semiconductor Manufacturing Co. Ltd. No. 8, Li-Hsin Rd. 6 Science-Based Industrial Park Hsin-Chu, Taiwan, R.O.C.
3 Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other: Execution Date: <u>November 19, 2003</u>	Additional name(s) & address(es) attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
4 Application number(s) or patent number(s): <u>101788912</u> If this document is being filed together with a new application, the execution date of the application is: <u>11/19/03</u>	
A. Patent Application No(s).	B. Patent No(s)
Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5 Name and address of party to whom correspondence concerning document should be mailed: RANDY W. TUNG Tung & Associates 838 W. Long Lake Road Suite 120 Bloomfield Hills, Michigan 48302	6 Total number of applications and patents involved: <u>1</u> 7 Total fee (37 CFR 3.41) <u>\$40.00</u> <input type="checkbox"/> Enclosed <input checked="" type="checkbox"/> Authorized to charge credit card (w/filing fee) 8 Deposit Account Number: (Attach duplicate copy of this page if paying by deposit account)
03/04/2004 WASFAW1 00000049 10788912 03 FC:8021 40.00 DP	
9 Statement and signature. <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i> Randy W. Tung Name of Person Signing Registration No. 31,311 Signature <u>Feb. 27/04</u> Date Total number of pages including cover sheet, attachments, and document: <u>3</u>	


 1/5/10 U.S. PTO
 10/788912


022704

ASSIGNMENT

WHEREAS, we, KEI-WEI CHEN, JUNG-CHIH TSAO, CHI-WEN LIU, JCHUNG-CHANG CHEN, SHIH-TZUNG CHANG, SHIH-HO LIN, YU-KU LIN and YING-LANG WANG, have invented certain improvements in

METHOD OF FORMING BARRIER LAYER WITH REDUCED RESISTIVITY AND
IMPROVED RELIABILITY IN COPPER DAMASCENE PROCESS

for which we are about to make application for Letters Patent of the United States; and

WHEREAS, TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD. of No. 6, Li-Hsin Rd. 6, Science-Based Industrial Park, Hsin-Chu, Taiwan, R.O.C, is desirous of acquiring the entire right, title and interest in and to said invention;

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, we KEI-WEI CHEN, JUNG-CHIH TSAO, CHI-WEN LIU, JCHUNG-CHANG CHEN, SHIH-TZUNG CHANG, SHIH-HO LIN, YU-KU LIN and YING-LANG WANG, by these presents, do hereby sell, assign and transfer unto the said corporation and its assigns, for the territory of the United States of America and all foreign countries, the entire right, title and interest, including all priority rights under the International Convention associated with each country of the Union, in and to said invention as described in the patent application executed by us on the 19 day of Nov, 2003, preparatory to obtaining Letters Patent of the United States

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67,200-1210

2003-0648

thereon, and in and to said application and any Letters Patent that may be granted in pursuance of said application and any divisional, continuation or continuation-in-part application thereof, and in and to any reissue of any such patent, and in and to any patent applications which may be filed on said invention in countries foreign to the United States and any Letters Patent granted thereon.

We further authorize said corporation to apply for foreign patents on said invention in its own name or through its designees, including subsidiaries, related companies or assignees, under the International Convention or otherwise, and we further agree to execute all papers, including those required for the United States and foreign applications, and to perform such other proper acts as said corporation or its designees the rights herein assigned.

Kei-Wei Chen
KEI-WEI CHEN

Jung-Chih Tsao
JUNG-CHIH TSAO

Chi-Wen Liu
CHI-WEN LIU

JChung-Chang Chen
JCHUNG-CHANG CHEN

Shih-Tzung Chang
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